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REMARKS

Claims 1-20 are in the case and stand rejected under 35 USC § 102 over USPN 6,477,447 to Lin. Claims 10-18 are hereby cancelled. The rejections are respectfully traversed. Reconsideration and allowance of the claims are respectfully requested.

CLAIM REJECTIONS UNDER §102

Claims 1-20 are rejected under 35 U.S.C. 102 as being unpatentable over Lin. As a prelude to the explanation below, applicants note that the rejections are based on an impermissible broadening of the phrase "pressure related components" as used by Lin. This impermissible broadening occurs because the definitions of the phrase as provided by Lin have been overlooked in the office action. Further, the office action impermissibly misconstrues the Berman reference to indicate something which it does not. When this phrase is restricted to the breadth that was intended by Lin, then the claims of the present application are allowable.

Independent claim 1 claims, *inter alia*, a method for inspecting a uniformity of pressure applied between a *conditioner* and a polishing pad on a chemical mechanical polisher, by placing a sheet of pressure sensitive material between the *conditioner* and the polishing pad, lowering the *conditioner* onto the sheet of pressure sensitive material, applying a desired degree of pressure between the *conditioner* and the polishing pad, lifting the *conditioner* from the sheet of pressure sensitive material, and inspecting the sheet of pressure sensitive material to determine the uniformity of the pressure applied between the *conditioner* and the polishing pad.

Lin does not describe such a method. Specifically, Lin only describes taking pressure readings from within a chain of "pressure related components" that all have to do with the *wafer* polishing subsystem of a chemical mechanical polisher. Lin does not contemplate or in any way describe components within the *conditioner* subsystem of a chemical mechanical polisher. As described by Lin, the present application, and Berman, the wafer polishing subsystem and conditioner subsystem are two separate subsystems of a chemical mechanical polisher.

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For example, Lin depicts only *wafer* polishing components, and does not depict any conditioner components. Lin always describes his embodiments in relation to the wafer polishing components, as follows: “for pressure-sensing of a *wafer* surface” (column 2 line 41), “various pressure-related components *during a wafer CMP process*” (column 2 lines 52-53), “on the surfaces of the *wafer* and the pressure related components” (column 2 lines 66-67), “detecting pressure distribution on a *wafer* surface” (column 3 lines 4-5), “subjecting the *wafer* and the pressure related components to various pressure conditions” (column 3 lines 13-14), “it is an object of the present invention to provide a method of pressure detection on the surfaces of the *wafer* and the pressure related components” (column 4 lines 15-17), emphasis added.

In each instance, Lin describes sensing pressure in regard to a *wafer*, and *not* a *conditioner*. The “pressure related components” as recited by Lin are those components that are used to apply pressure on the surface of the wafer. However, these are not the components that are used to apply pressure to the conditioner.

The examiner asserts that a conditioner fall under the definition of “pressure related components.” However, this logic is faulty. Lin effectively defines “pressure related components” in at least two different places in the reference. Lin states that “the invention relates to a method of detecting pressure distribution on a *wafer* surface *by* employing pressure sensitive films located on various pressure components such as a wafer carrier, a polishing pad, and mechanical arm members” (column 3 lines 4-8), emphasis added. All of these components are within the pressure train of the wafer polishing subsystem of a chemical mechanical polisher. Further, Lin restricts his invention to “detecting pressure distribution on a *wafer* surface.”

There is no way that Lin could detect pressure distribution on a *wafer* surface by measuring the pressure on the *conditioner*, as presently claimed, and thus, Lin never describes any components of the conditioner subsystem. Lin stops in his description of pressure monitoring at the wafer polishing subsystem. The present invention as claimed is directed toward a different subsystem of the chemical mechanical polisher, which is the conditioner subsystem. As described above, Lin does not mention any of the components of the conditioner subsystem.

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The examiner has cited USPN 6,722,948 to Berman, who is one of the applicants of the present application, as support for the erroneous assertion that a conditioner is a "pressure related component" as the phrase is used by Lin. However, there is no mention in Berman of a conditioner being a "pressure related component." Lin uses that phrase to describe a very specific subsystem within a chemical mechanical polisher, as described at length above. Just because two references use a common phrase, does not mean that each reference means the same thing by the phrase. However, in the present case, the phrase as used by Lin is not even found in Berman. Therefore, there is absolutely no support in Berman that a conditioner is a "pressure related component" as the term is used in Lin.

However, Berman does provide some limited degree of insight into the present situation. It is very evident by Fig. 1 of Berman that the wafer polishing subsystem and the conditioner subsystem of a chemical mechanical polisher are separate systems. Thus, it is evident that all of the references in Lin to the pressure related components, which are used in conjunction with the wafer polishing subsystem, are not a part of the conditioner subsystem.

Thus, claim 1 patentably defines over Lin. Reconsideration and allowance of claim 1 are respectfully requested. Dependent claims 2-9 depend from independent claim 1, and contain additional important aspects of the invention. Therefore, dependent claims 2-9 patentably define over Lin. Reconsideration and allowance of dependent claims 2-9 are respectfully requested. Claims 10-18 are cancelled, as they were directed toward the wafer polishing subsystem, and not toward the conditioner subsystem.

Similar to that as described above in regard to claim 1, claim 19 claims, *inter alia*, a method for inspecting a uniformity of pressure applied between a *conditioner* and a polishing pad on a chemical mechanical polisher. The deficiencies of Lin in regard to such a combination of elements as recited in claim 19 are described at length above. Thus, claim 19 patentably defines over Lin. Reconsideration and allowance of claim 19 are respectfully requested. Dependent claim 20 depends from independent claim 19, and contains additional important aspects of the invention. Therefore, dependent claim 20 patentably defines over Lin. Reconsideration and allowance of dependent claim 20 are respectfully requested.

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CONCLUSION

Applicants assert that the claims of the present application patentably define over the prior art made of record and not relied upon for the same reasons as given above. Applicants respectfully submit that a full and complete response to the office action is provided herein, and that the application is now fully in condition for allowance. Action in accordance therewith is respectfully requested.

In the event this response is not timely filed, applicants hereby petition for the appropriate extension of time and request that the fee for the extension be charged to deposit account 12-2355. If other fees are required by this amendment, such as fees for additional claims, such fees may be charged to deposit account 12-2252. Should the examiner require further clarification of the invention, it is requested that s/he contact the undersigned before issuing the next office action.

Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By: 

Rick Barnes, 39,596

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